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COMPUTER SYSTEM FOR IDENTIFYING LOCAL RESOURCES

This application is the national phase of international application PCT/GB96/01996 filed Aug. 15, 1996 which designated the U.S.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to computer systems, and to methods of operating computer systems. The invention has particular relevance to the so called "World Wide Web", which is part of the global computer network system known as the Internet.

2. Description of the Related Art

The Internet and the World Wide Web ("WWW" or "The Web") have been described in great detail in a large number of publications in recent months. The Web consists essentially of an enormous number (at the last count, many millions, and expanding rapidly) of "host" or "server" computers which contain information of various types which users may wish to access. Users of the system employ a "client" computer, running "client" software, in order to access the information. Such client programs are usually known as "browsers".

Various standard protocols enable requests to be formulated by the many client computers, and passed via the Internet to whichever computer holds the relevant information, which then returns the information to the client, using the same protocols.

The protocol which is used on the World Wide Web is an agreed standard, known as the HyperText Transfer Protocol (HTTP).

The language in which "Web" pages are generated is known as "HyperText Markup Language" (HTML).

The success of HTML/HTTP is based to a large extent on the ability of HTTP to produce so called "hypertext links" in the form of some sort of displayable icon on the computer screen of the client. The icon may be a graphical icon, or, more commonly, simply text represented in a form which is visually distinct from the surrounding text. Activating the icon with a pointing device (for example, clicking on it with a mouse pointer) causes the browser software to formulate a request for further information to be sent to the "client". This further information may be simply a "page" of text data, or it may be graphical data, or sound or video data. It may reside on the same server computer as the page containing the hypertext link, but need not do so, and will often reside on a computer many thousands of miles away.

The World Wide Web has recently attracted increasing attention as an advertising medium for various goods and services. The advantage of the Web as an advertising medium is that a single connection allows access by millions of potential customers around the world, without any need for the customers to know or be interested in the physical location of the server computer which is providing the information. Links to the pages of interest may be provided by hundreds or thousands of other pages, provided on other servers, throughout the world.

For many goods and services, the lack of a physical "place" on the Internet is an advantage. A consumer, no matter where his location, is presented with a familiar interface, which makes access very straightforward. The very size of the World Wide Web however, means that, as presently constituted, it is not well suited to answering

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questions about places and proximity. For example, it is not possible, using existing Web search tools to answer questions such as "where is the nearest hamburger restaurant?" in spite of the enormous benefit which would accrue to major restaurant chains and the like in providing their own answers to such questions, with the speed and ease for which the Internet is famous.

SUMMARY OF THE INVENTION

The present invention seeks to address the problem of facilitating access by Internet users, and in particular by users of the World Wide Web, to Internet resources, where the primary differentiator between different places of interest is geographical.

According to a first aspect of the present invention, there is provided a method of operating a computer system, the method comprising the steps of:

storing on a map server computer map data representative of a map of a geographical area; storing on the map server computer coordinate data indicative of the spatial coordinates of at least one point associated with the geographical area represented by the map, so as to enable correlation of points on the map with their corresponding geographical location;

storing on an information server computer information data relating to at least one place of interest within the geographical area, said information data including data representative of the spatial coordinates of the place of interest within the area;

transmitting a map request to the map server computer from a client computer, and transmitting from the map server computer to the client computer in response to the map request the map data and the coordinate data associated with the area represented by the map;

utilizing the map data to display an image of the map on a visual display unit associated with the client computer;

transmitting an information request to the information server computer from the client computer, and transmitting from the information server computer to the client computer in response to the information request the information data relating to at least one place of interest within the geographical area; and,

displaying the information data relating to at least one place of interest on the visual display unit.

The map request may be transmitted before the information request, the information request being formulated by including coordinate data provided by the map server.

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According to a second aspect of the present invention, there is provided a computer system, the computer system comprising:

a map server computer for storing map data representative of a map of a geographical area and coordinate data representative of the spatial coordinates of at least one point lying within the area represented by the map;

an information server computer for storing information data representative of at least one place of interest within the geographical area, said data including data representative of the spatial coordinates of the place of interest within the area; and,

a client computer, the client computer having a visual display unit;